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### **REMARKS**

The Applicants thank the Examiner for his careful and thoughtful examination of the present application. By way of summary, Claims 1-45 were pending in this application. In the present amendment, the Applicants have amended the specification, replaced the drawings and supplied formal drawings, canceled Claims 12-14, 16, 18, 27-29, 31 and 42-45 without prejudice or disclaimer, amended Claims 1, 15, 17, 19, 30, 32 and 40, and added new Claims 46-49. Accordingly, Claims 1-11, 15, 17, 19-26, 30, 32-41 and 46-49 remain pending for consideration.

#### **Response To Drawing Objections**

In the Notice of Draftsperson's Patent Drawing Review attached to the Office Action, the Official Draftsperson objected to the margins of Figure 5, and the legibility of the reference numerals of Figures 1-3 and 5. Additionally, the Office Action objected to the Figures as failing to show descriptive textual labels. In response, the Applicants submit herewith, new formal drawings that correct the above-mentioned formalities.

The Applicants respectfully submit that no new matter is introduced by the proposed drawing changes and therefore respectfully request the Examiner to withdraw the objection to the drawings.

#### **The Specification**

The Applicants have amended the specification to include the provisional patent number not known at the time of filing the present application, and to correct another informality. The Applicants respectfully submit that no new matter is being introduced by way of these amendments.

#### **Rejection Of Claim 17 Under 35 U.S.C. § 102(e)**

The Office Action rejected Claim 17 under 35 U.S.C. § 102(e) as being anticipated by U.S. patent no. 6,026,412, issued to Sockut et al. (the Sockut patent). The Applicants respectfully traverse this rejection as it may be applied to amended Claim 17 for the following reasons.

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The Applicants respectfully submit that Claim 17 as previously pending was patentably distinguished over the Sockut patent, however, the Applicants amended Claim 17 without altering its scope in order to clarify certain features of the Applicants' invention. This claim amendment is not made for patentability purposes, and it is believed that the claim would satisfy the statutory requirements for patentability without the entry of such amendment. For example, the Applicants respectfully submit that Socket et al. do not teach or suggest use of a table, other than the original table and the reorganized table, for placing the markers used during reorganization of the original table. Although the Applicants believe this to be the proper construction of original Claim 17, the Office Action asserted that the "dummy table" could include the "new table" (e.g., the reorganized table) from the disclosure of the Sockut patent. See Office Action, Page 5, last paragraph. Accordingly, the present amendment explicitly recites that the dummy table is not the original table or the reorganized table, which the Applicants believe to be the only reasonable construction of the original claim.

In any event, to anticipate a claim, a prior art reference must identically teach every element of the claim. See M.P.E.P. § 2131. In the present case, the Sockut patent fails to teach the use of a third table and therefore, fails to anticipate amended Claim 17. Accordingly, the Applicants respectfully request the § 102(e) rejection not be applied to amended Claim 17.

New Claim 48, similar to original Claim 18, which depends from independent Claim 17, is believed to be patentable for the same reasons articulated above with respect to Claim 17, and because of the additional features recited therein.

#### **Rejection Of Claims 1-11, 15, 19-26, 30, and 32-41 Under 35 U.S.C. § 103**

The Office Action rejected Claims 1-11, 15, 19-26, 30, and 32-41 under 35 U.S.C. § 103 as being unpatentable over various combinations of U.S. patent no. 6,122,640, issued to Pereira et al. (the Pereira patent), U.S. patent no. 6,460,048, issued to Teng et al. (the Teng patent), the Sockut patent discussed in the foregoing, U.S. patent no. 6,343,296, issued to Lakhamraju et al. (the Lakhamraju patent), U.S. patent no. 6,016,497, issued to Suver, (the Suver patent), and U.S. patent

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no. 5,297,279, issued to Bannon et al. (the Bannon patent). Each of these rejections is discussed in detail in the following.

**Claims 1-2, 4, 8-11, 19, 21-22, 24-25, 32, 34-35, 37-38 and 40**

The Office Action rejected Claims 1-2, 4, 8-11, 19, 21-22, 24-25, 32, 34-35, 37-38 and 40 under 35 U.S.C. § 103 as being unpatentable over the Pereira patent in view of the Teng patent. The Applicants respectfully traverse this rejection because the Pereira patent, alone or in combination with the Teng patent, fails to teach or suggest the elements of the claims. See M.P.E.P. § 2143 (stating that in order to establish a *prima facie* case of obviousness for a claim, the prior art references must teach or suggest all the claim limitations).

For example, with respect to independent Claims 1, 19, 32 and 40, the claims recite methods and systems for reorganizing data in an original object or table, to a reorganized object or table. During reorganization, the claims recite that a trigger lock applied to the original object fires or performs its operation-blocking actions only when clients of the original object or table request certain operations, e.g., certain data modification operations. Other operations, such as, for example, Select or data definition operations, do not cause the trigger lock on the original object or table to fire, and therefore, those client requests are continuously handled throughout reorganization. As discussed in the specification, such continuous access is becoming more important to client applications requiring continuous connections.

In contrast to the continuous client connections recited in Claims 1, 19, 32, and 40, the Pereira patent discloses a reorganization process where first and second locks are both applied to the original object. See Fig. 1, item 115 and 155, col. 7:20-25 (disclosing the first lock), and col. 12:44-67 (disclosing the second or "final" lock on the source table). While the first lock allows for some type of client access, the second lock completely locks all access to the original table. See col. 12:43-45, 55-56 (disclosing the final lock as killing active client sessions or waiting until all client sessions are closed). It is also noteworthy that Pereira et al. apply no locks to the reorganized table. Col. 12:65-67. This is apparently because use of the complete second lock on the original table allows all background processes to finish while the client application is

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completely barred from accessing any data. Thus, the Pereira patent fails to teach or suggest continuous client access to the data during table or object reorganization.

The Teng patent discloses use of shadow names during a SWITCH phase where table names of the reorganized tables are switched to the original tables names. Col. 2:21-25. Regardless of the technique, Teng et al. themselves recognize that access to the data is not continuous. See Col. 7:52-54 (stating "Thus, the database is only unavailable while the system information is updated . . ."). It is noteworthy that the Office Action cites to the background section disclosing prior art solutions of queuing client requests. However, in the background, Teng et al. also recognize that "queuing" is not "access." See col. 2:29-30 (stating "This SWITCH process can take several minutes during which the database is off-line."). According, the Teng patent also fails to teach or suggests the elements of Claims 1, 19, 32 and 40.

Thus, the Pereira patent, alone or in combination with the Teng patent, fails to teach or suggest the elements of Claims 1, 19, 32 and 40. Accordingly, the Applicants respectfully request that the § 103 rejections based on the same not be applied to amended independent Claims 1, 19, 32 and 40. Additionally, Claims 2-11, 20-21, 33-34 and 41, which depend from independent Claims 1, 19, 32 and 40, are believed to be patentable for the same reasons articulated above and because of the additional features recited therein.

With respect to independent Claims 22 and 35, the claims recite methods and systems for reorganizing data in an original object, to a reorganized object. During reorganization, the claims recite that a trigger lock applied to the reorganized object fires or performs its operation-blocking actions only when clients of the original object or table request certain operations, e.g., certain data modification operations. Other operations, such as, for example, Select or data definition operations, do not cause the trigger lock on the reorganized object to fire, and therefore, those client requests are continuously handled throughout reorganization.

In contrast to application of a trigger lock of the type recited in Claims 22 and 35, the Pereira patent explicitly recites that no locks are applied to the reorganized table. Col. 12:65-67. Moreover, as discussed in the foregoing, the Teng patent also fails to teach or suggest locks applied to the reorganized table. Thus, the Pereira patent, alone

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or in combination with the Teng patent, fails to teach or suggest the elements of independent Claims 22 and 35. Accordingly, the Applicants respectfully request that the § 103 rejections based on the same be withdrawn. Additionally, Claims 23-25 and 36-38, which depend from independent Claims 22 and 35, are believed to be patentable for the same reasons articulated above and because of the additional features recited therein.

**Claims 3, 20, 23, 30, 33, 36 and 41**

The Office Action rejected Claims 3, 20, 23, 30, 33, 36 and 41 under 35 U.S.C. § 103 as being unpatentable over the Pereira patent in view of the Teng patent and the Sockut patent. The Applicants respectfully traverse this rejection for the following reasons.

With respect to amended independent Claim 30, the claim recites a reorganization system similar to those disclosed with reference to independent Claims 1, 19, 32, and 40, in that Claim 30 recites a trigger lock applied to an original table which fires or performs its operation-blocking actions only when clients of the original table request certain operations, e.g., certain data modification operations. Other operations, such as, for example, Select or data definition operations, do not cause the trigger lock on the original table to fire, and therefore, those client requests are continuously handled throughout reorganization.

As discussed in the foregoing, the Pereira, alone or in combination with the Teng patent fail to teach or suggest the elements of this recited type of reorganization system. Moreover, the Office action applies the Sockut patent to allege that read-only client requests, such as, Select, are combinable with the first lock disclosed in the Pereira and Teng patents. Regardless of the propriety of combining this third reference, this allegation regarding the Sockut patent still fails to create a combination of prior art references that teach or suggest continuous client access through the recited trigger lock on the original table.

Accordingly, the Applicants respectfully request that the § 103 rejections based on the same not be applied to amended independent Claim 30. Additionally, new Claim 49, which depends from independent Claim 30 and is similar to original Claim 31,

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is believed to be patentable for the same reasons articulated above and because of the additional features recited therein. Moreover, Claims 3, 20, 23, 33, 36 and 41, which depend from independent Claims discussed in the foregoing, are believed to be patentable for the same reasons articulated above and because of the additional features recited therein.

#### **Claims 5-7**

The Office Action rejected Claims 5-7 under 35 U.S.C. § 103 as being unpatentable over the Pereira patent in view of the Teng patent and the Lakhamraju patent and the Suver patent. Regardless of the propriety of combining four references, the Applicants submit that dependent Claims 5-7, which depend from independent Claim 1 discussed in the foregoing, are believed to be patentable for the same reasons articulated above and because of the additional features recited therein.

#### **Claim 15**

The Office Action rejected Claim 15 under 35 U.S.C. § 103 as being unpatentable over the Bannon patent in view of the Pereira patent. The Applicants respectfully traverse this rejection for the following reasons.

The Applicants respectfully submit that their understanding of the Bannon patent appears to reveal that the Bannon patent is not concerned with data file, table, or object reorganization, but with developing an application interface that allows objects stored and accessed by a backend database management system, to be portable to different computing platforms. Again, the Applicants understanding of the Bannon patent is that Bannon incorporates normal prior art locks on various objects Bannon et al. are creating for portability. The normal prior art locks do not appear to the Applicants to have the claimed ability to block certain data modification operations while allowing multiple structural operations to be applied to an object. Thus, the Bannon patent appear to be irrelevant to amended Claim 15.

Additionally, the Pereira patent discloses a reorganization process where the lock used during structural operations, such as, for example, the changing the name of

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the object, completely locks all access to the table. See col. 12:43-45, 55-56. It is also noteworthy that Pereira et al. apply no locks to the reorganized table. Col. 12:65-67.

Therefore, the Applicants respectfully submit that to the best of their understanding, the Bannon patent, alone or in combination with the Pereira patent, fails to teach or suggest the recited elements of amended Claim 15. Accordingly, the Applicants respectfully request that the § 103 rejection based on the same not be applied to amended independent Claim 15. Additionally, new Claims 46-47, which depend from independent Claim 15, are believed to be patentable for the same reasons articulated above and because of the additional features recited therein.

### **Claims 26 and 39**

The Office Action rejected Claims 26 and 39 under 35 U.S.C. § 103 as being unpatentable over the Pereira patent in view of the Teng patent and the Lakhamraju patent. The Applicants respectfully traverse this rejection for the following reasons.

As discussed in the foregoing with respect to independent Claims 22 and 35, Claims 26 and 39 recite methods and systems for reorganizing data in an original object to a reorganized object. During reorganization, the claims recite that a trigger lock applied to the reorganized object fires or performs its operation-blocking actions only when clients of the original object or table request certain operations, e.g., certain data modification operations. Other operations, such as, for example, Select or data definition operations, do not cause the trigger lock on the reorganized object to fire, and therefore, those client requests are continuously handled throughout reorganization.

In contrast to application of a trigger lock of the type recited in Claims 26 and 39, the Pereira patent explicitly recites that no locks are applied to the reorganized table. Col. 12:65-67. Moreover, as discussed in the foregoing, the Teng patent also fails to teach or suggest locks applied to the reorganized table. The additional recitation by the Office Action to the Lakhamraju patent discusses the teachings of relational constraints. Regardless of the propriety of combining this third reference with two additional references, the Applicants respectfully submit that the Lakhamraju patent still fails to create a combination of prior art references that teach or suggest application of a trigger lock to the reorganized object.

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Thus, the Pereira patent, alone or in combination with the Teng and Lakhamraju patents, fails to teach or suggest the elements of independent Claims 26 and 39. Accordingly, the Applicants respectfully request that the § 103 rejections based on the same be withdrawn.

**Conclusion and Request For Telephone Interview**

In view of the forgoing, the present application is believed to be in condition for allowance, and such allowance is respectfully requested. If further issues remain to be resolved, the Applicants' undersigned attorney of record hereby formally requests a telephone interview with the Examiner. The Applicants' attorney can be reached at (949) 721-2946 or at the number listed below.

In addition, please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: May 27, 2003

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